

Parameter	Sensitivity															
	Stand density				Forested area				Stemcount				Peak recruit position			
	5 %		50 %		5 %		50 %		5 %		50 %		5 %		50 %	
	S-	S+	S-	S+	S-	S+	S-	S+	S-	S+	S-	S+	S-	S+	S-	S+
$r_{\text{Maximum seeds}}$	$0.6 \pm 1.4^{**}$	0.2 ± 1.5	$0.1 \pm 0.1^{**}$	0.0 ± 0.2	0.0 ± 3.2	0.7 ± 3.1	0.0 ± 0.3	0.0 ± 0.4	0.0 ± 3.0	0.3 ± 3.1	0.0 ± 0.3	0.0 ± 0.3	0.9 ± 4.5	0.0 ± 4.4	0.0 ± 0.4	0.0 ± 0.3
V_d	0.0 ± 1.6	0.5 ± 1.7	0.0 ± 0.2	0.0 ± 0.1	1.0 ± 2.7	0.0 ± 3.1	0.0 ± 0.4	$0.2 \pm 0.4^{**}$	0.3 ± 2.3	-0.2 ± 2.5	-0.1 ± 0.3	$0.3 \pm 0.4^{**}$	0.8 ± 3.7	-0.4 ± 3.8	$-0.3 \pm 0.5^{**}$	$1.4 \pm 0.5^{**}$
s_{dist}	0.0 ± 1.4	0.2 ± 1.6	$0.1 \pm 0.2^{**}$	$0.0 \pm 0.1^{**}$	0.2 ± 2.8	0.8 ± 3.4	$-0.3 \pm 0.4^{**}$	$0.2 \pm 0.4^{**}$	0.0 ± 2.9	0.6 ± 3.0	$-0.3 \pm 0.3^{**}$	$0.2 \pm 0.3^{**}$	0.5 ± 4.3	0.9 ± 4.4	-0.1 ± 0.4	$0.4 \pm 0.5^{**}$
f_S	-0.2 ± 1.6	$0.7 \pm 1.5^{**}$	$-0.6 \pm 0.1^{**}$	$0.4 \pm 0.2^{**}$	-0.8 ± 3.3	$1.9 \pm 1.9^{**}$	$-1.5 \pm 0.1^{**}$	$0.4 \pm 0.3^{**}$	$-1.9 \pm 2.7^{**}$	$2.9 \pm 2.1^{**}$	$-1.5 \pm 0.1^{**}$	$1.7 \pm 0.5^{**}$	$-1.9 \pm 4.5^{***}$	$2.9 \pm 5.0^{**}$	$-1.3 \pm 0.2^{**}$	$3.0 \pm 1.1^{**}$
$f_{\text{Background germination}}$	0.2 ± 1.5	$0.6 \pm 1.7^{**}$	$0.0 \pm 0.1^{***}$	$0.1 \pm 0.2^{**}$	0.0 ± 3.5	0.1 ± 2.7	0.0 ± 0.3	0.1 ± 0.2	-0.1 ± 2.8	0.2 ± 2.5	$-0.1 \pm 0.3^{***}$	0.1 ± 0.3	0.7 ± 4.1	0.9 ± 3.7	0.0 ± 0.3	$0.2 \pm 0.4^{***}$
$f_{\text{Weather germination}}$	-0.1 ± 1.6	$0.6 \pm 1.5^{**}$	$-0.5 \pm 0.1^{**}$	$0.3 \pm 0.2^{**}$	-0.6 ± 3.6	0.8 ± 2.8	$-1.4 \pm 0.1^{**}$	$0.4 \pm 0.4^{**}$	$-1.5 \pm 3.0^{**}$	$2.2 \pm 2.8^{**}$	$-1.5 \pm 0.1^{**}$	$1.5 \pm 0.5^{**}$	0.3 ± 4.3	$3.3 \pm 7.2^{***}$	$-1.1 \pm 0.2^{**}$	$3.0 \pm 1.6^{**,***}$
$\text{age}_{\text{Maximum seeds}}^*$			$-0.4 \pm 0.1^{**}$	$0.2 \pm 0.2^{**}$			$-1.1 \pm 0.2^{**}$	$0.2 \pm 0.4^{**}$			$-1.2 \pm 0.1^{**}$	$0.6 \pm 0.4^{**}$			$-0.9 \pm 0.2^{**}$	$0.8 \pm 0.6^{**}$
$P_{\text{Seed mortality, cones}}$	$0.6 \pm 1.6^{**}$	-0.3 ± 1.6	$0.3 \pm 0.2^{**}$	$-0.5 \pm 0.1^{**}$	0.6 ± 3.0	-0.4 ± 2.2	$0.4 \pm 0.3^{**}$	$-1.3 \pm 0.2^{**}$	$1.6 \pm 2.7^{**}$	$-1.5 \pm 1.6^{**}$	$1.5 \pm 0.6^{**}$	$-1.4 \pm 0.1^{**}$	$2.6 \pm 5.4^{***}$	-0.6 ± 3.9	$2.9 \pm 2.1^{**}$	$-1.1 \pm 0.2^{**}$
$P_{\text{Seed mortality, ground}}$	0.1 ± 1.5	-0.1 ± 1.3	$0.2 \pm 0.2^{**}$	$-0.1 \pm 0.1^{**}$	0.1 ± 3.0	-0.1 ± 3.4	$0.3 \pm 0.4^{**}$	$-0.3 \pm 0.3^{**}$	0.1 ± 2.7	-0.5 ± 2.7	$0.6 \pm 0.4^{**}$	$-0.5 \pm 0.2^{**}$	1.3 ± 4.1	0.6 ± 3.5	$0.6 \pm 0.5^{**}$	$-0.4 \pm 0.2^{**}$
f_{H_t}	$0.4 \pm 1.3^{***}$	0.2 ± 1.7	$0.0 \pm 0.2^{***}$	0.0 ± 0.1	0.1 ± 3.1	-0.1 ± 3.1	$-0.2 \pm 0.3^{**}$	0.1 ± 0.4	0.3 ± 2.8	0.0 ± 2.8	$-0.3 \pm 0.2^{**}$	$0.2 \pm 0.4^{***}$	0.0 ± 3.0	0.2 ± 3.7	$-0.5 \pm 0.3^{**}$	$0.7 \pm 0.5^{**}$
$f_{\bar{\theta}}$	0.0 ± 1.4	0.2 ± 1.4	0.0 ± 0.2	0.0 ± 0.2	-0.4 ± 2.2	$1.5 \pm 3.0^{***}$	0.1 ± 0.3	$0.3 \pm 0.4^{**}$	-0.4 ± 2.2	$1.8 \pm 3.1^{**}$	$0.1 \pm 0.4^{***}$	$0.3 \pm 0.4^{**}$	-0.1 ± 5.7	$2.9 \pm 3.8^{**}$	$0.3 \pm 0.4^{**}$	$0.7 \pm 0.5^{**}$
f_{V_w}	0.1 ± 1.6	0.1 ± 1.7	$0.1 \pm 0.2^{***}$	0.0 ± 0.1	0.2 ± 2.9	0.2 ± 3.2	$-0.3 \pm 0.3^{**}$	$0.2 \pm 0.4^{***}$	0.1 ± 2.5	0.3 ± 3.8	$-0.4 \pm 0.2^{**}$	$0.2 \pm 0.4^{***}$	0.3 ± 3.3	$1.6 \pm 3.7^{***}$	$-0.6 \pm 0.4^{**}$	$0.7 \pm 0.3^{**}$
$P_{\text{Seed release}}$	-0.1 ± 1.5	0.4 ± 1.7	$-0.5 \pm 0.1^{**}$	$0.3 \pm 0.2^{**}$	-0.1 ± 2.9	0.3 ± 3.2	$-1.3 \pm 0.2^{**}$	$0.4 \pm 0.4^{**}$	-0.7 ± 2.5	$1.4 \pm 3.0^{***}$	$-1.4 \pm 0.1^{**}$	$1.2 \pm 0.5^{**}$	-0.5 ± 3.3	$2.0 \pm 3.9^{**}$	$-1.1 \pm 0.2^{**}$	$1.9 \pm 1.4^{**}$
Mean absolute $S_{-,+}$	$0.28 \pm 0.21^{**}$		$0.19 \pm 0.20^{**}$		$0.79 \pm 0.82^{**}$		$0.66 \pm 0.60^{**}$		$0.46 \pm 0.47^{**}$		$0.43 \pm 0.46^{**}$		$1.09 \pm 0.99^{**}$		$0.92 \pm 0.88^{**}$	